Manhattan Project II:
Abolishing Nuclear Weapons

by Daniel Ellsberg

Most people seem to think that the era of nuclear danger is over, that it ended along with the cold war. Whatever residual problems remain in terms of proliferation or possible terrorism, they believe, are being dealt with urgently and adequately by their national leaders. Unhappily, they are wrong on both counts. This remains so despite the May 1995 renewal of the nuclear non-proliferation treaty, which many mistakenly believe constituted a major step toward permanently ensuring that nuclear weapons will be limited to the countries that currently possess them.

On balance, although the risk of nuclear war between NATO and the former Warsaw Pact powers has virtually vanished, the chance that some nuclear weapons will kill masses of humans somewhere, before very long, may well be higher than before.

One phase of the nuclear age, the period of superpower arms race and confrontation, has indeed come to a close. But another dangerous phase now looms, the era of nuclear proliferation and with it, an increased likelihood of regional nuclear wars, accidents, and nuclear terrorism. Such possibilities are real, for example, not only in South Asia, between India and Pakistan, but in coming decades within and on the borders of the former Soviet Union, and above all in Russia itself. The folly, desperation and butchery exhibited by Russian leaders in Chechnya—challenging insurgents to counter-terrorism inside a nation loaded with nuclear reactors and nuclear weapons—underlines former Secretary of State James Baker's vivid warning three years ago of a "Yugoslavia with nukes."

Even before the cold war ended, several new nations were on the verge of acquiring nuclear weapons. South Africa disclosed—after destroying its weapons and opening its facilities to inspection—that it had actually done so. UN inspections after the Gulf War revealed that covert traffic in technology had brought Iraq much closer to a bomb than had been realized. This had earlier proven true in Israel, India and Pakistan. It might be the case in North Korea, Iran, Algeria and other states, as well. Before accepting unprecedented access to its installations as a result of its defeat in the Gulf War, Iraq—a Non-Proliferation Treaty (NPT) signer—had already been subject to regular inspections by the International Atomic Energy Agency (IAEA), which had failed to discover it's extensive program. North Korea, Iran and Algeria are also NPT members, but IAEA inspections have not stilled suspicions.

Every one of these instances points to the inadequacy of current international monitoring, primarily by the International Atomic Energy Agency, compared to what is required for a truly effective nonproliferation regime. To say this is to say that the increase in NPT membership and the decision to extend the Treaty indefinitely at the NPT Review and Extension Conference at the UN in May 1995 did not, in themselves, improve the ominous prospects described above. The need for strengthening the non-proliferation regime, making it truly effective, universal and permanent, and all the problems involved in doing so—in particular, winning commitment from the nuclear-weapon states to the renunciation of nuclear threats and to progressive nuclear disarma-

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ment with the goal of elimination of nuclear weapons—remain just as they were before that conference.

The dissolution of the Soviet Union and authority structures in Russia and Russia's desperate need for foreign income have created real fears about the emergence of a nuclear black market that would find customers throughout the world. Alongside the specter of nuclear civil war in Russia has arisen the comparably ominous prospect: a global metastasis from the former Soviet Union of nuclear technology, materials, expertise, and even operational weapons into the hands of emerging nuclear states or terrorists, ethnic or religious insurgents and criminal gangs. If this is not promptly and decisively averted by multilateral efforts with a wholly new sense of urgency, access to nuclear technology and nuclear devices will soon come to be much cheaper, easier, and quicker than ever before. Yet the United States has been very slow to offer and implement the *reciprocal* transparency and accountability covering US facilities, stockpiles of fissile materials and warheads, and dismantling of warheads that is the necessary price of winning Russian acceptance of bilateral inspection. The resulting freedom of the Russian nuclear establishment from international or bilateral monitoring is the most dangerous threat to world security now existing.

Major Shifts in Attitude and Policy

Averting catastrophe—not only the spread of weapons but their

lethal use—will require major shifts in attitude and policy in *every one* of the nuclear-weapon states, declared and undeclared. And not in those states alone. There is not a country in the world in which efforts by national leaders in this sphere can really be said to be adequate. But such change is undoubtedly most needed, and must come first, in the United States and Russia. Despite important and creditable moves, both unilateral and negotiated, since 1991 to reverse their bilateral arms race, and piecemeal measures to restrain proliferation, none of their initiatives and proposals has shown a decisive shift away from cold war notions of the broad functions of and requirements for nuclear weapons in "superpower" arsenals.

Neither has adopted—even as a goal—a nuclear posture that is remotely appropriate, let alone adequate, to discourage proliferation effectively. On the contrary, as in the past, their joint declaratory position against proliferation is at odds with their operational doctrines and nuclear weapons programs which continue, on balance, to stimulate the spread and possible use of nuclear weapons. And that is true of all the declared nuclear powers, which not coincidentally make up the permanent membership of the UN Security Council.

With each month and year that these states maintain large nuclear arsenals, postpone a total test ban, and sustain nuclear policies that suggest that such weapons convey major-power status and are useful for political and military purposes, other nations can only conclude that acquiring and in some circumstances using nuclear weapons may be in their national interest.

Looking specifically at the United States, a whole set of policies persist that have long tended to *encourage* proliferation. These have included long-term selective tolerance for some covert nuclear weapons programs, Israel's in particular, but also in India, South Africa and, until recently, Pakistan and Iraq.

Moreover, the United States maintains a massive nuclear arsenal after the end of the cold war, resists radical cuts, and insists on its right, and that of its NATO allies, to threaten or implement initiation of nuclear attack ("first-use") against non-nuclear challenges.

Beyond this, US policies continue to endorse the notion that the relative size of nuclear arsenals is an essential badge of status. Just like its predecessors—and with the support of most elite opinionmakers and mainstream arms control analysts—the Clinton administration declares itself resolved to maintain nuclear superpower standing, insisting on a US arsenal that will remain for the next decade an order of magnitude larger than all others apart from Russia, and which is projected to remain "Number One" in the world indefinitely.

The need for US nuclear "superiority" goes unquestioned, while the same administration, members of Congress and editorialists lecture potential "rogues" among the non-nuclear-weapon states on the anachronism of their fantasy that having some nuclear weapons rather than none will confer on them any prestige, status or influence.

All these expressions of nuclear policy—what we do, and what we say to ourselves, as opposed to what we say others should do—especially in the absence now of any serious military threats to US national security can only encourage potential nuclear states to regard nuclear weapons in the same way that the United States and its major allies evidently do: as having vital, multiple, legitimate uses, as well as being unparalleled symbols of sovereignty, status, and power.

Perhaps most dangerously, such potential proliferators are led by past and present American doctrine and behavior to consider—among the possible, acceptable and valuable uses of nuclear weapons—the issuance, and possible execution, of nuclear first-use threats: i.e., the option of threatening to initiate nuclear attacks, and if necessary of carrying out such threats. Such a prospect challenges states to acquire nuclear capabilities of their own, and perhaps even to enter a regional nuclear arms race—mimicking past superpower folly—to be able to threaten, to deter or to preempt nuclear attack.

Years after the former members of the Warsaw Pact, including Russia, began asking to be admitted to NATO, and after China has acquired most-favored nation status, the United States still refuses to adopt a policy of "no-first-use." This means that the United States refuses to make a commitment to never under any circumstance initiate a nuclear attack. This is also true of Britain, France and now Russia, which abandoned its no-first-use doctrine in late 1993, citing the United States-NATO example and reasoning in doing so.

This is not only a matter of words, as some suppose. Despite sensible moves on both sides beginning in late 1991 to remove tactical nuclear weapons from the surface navy and from ground units—responding to realistic fears in both leaderships of "loose nukes" in the Soviet Union—both states continue to deploy sizeable numbers of tactical weapons on air bases and still larger numbers in reserve storage. Virtually all of these weapons are vulnerable to nuclear attack. Thus, they are weapons only for first-use or for use against non-nuclear opponents.

So long as these continue to be components of the nuclear arsenals of both the United States and Russia, even after their own

overarching confrontation has ended, there is simply no logical argument for denying either the legitimacy or reasonableness of nuclear arsenals sized and shaped to the same ends in other countries. This is especially true for countries such as Pakistan and Israel, who face regional opponents with much larger conventional forces. This after all was the historic rationale for NATO's reliance on first-use nuclear threats.

In May 1990, a nuclear conflict between India and Pakistan over Kashmir was plausibly feared by US officials, and little has happened to reduce the prospect of a recurrence. But then or later the United States was in no position to invoke an internationally-accepted norm against Pakistan's tacit first-use threats, since Pakistan was so clearly imitating US and NATO behavior.

Nuclear Weapons and the Gulf War

Later that same year, in the Gulf War, not one of the four nuclear states militarily arrayed against Iraq—the United States, Britain, France and Israel—refrained from tacit threats to initiate nuclear attacks under some circumstances. Under public questioning, high US and other Allied officials—including Vice President Quayle, Secretary of Defense Cheney and General Schwarzkopf—pointedly refused to rule out the possible first-use of nuclear weapons against Iraq: in particular, if the Iraqis used chemical weapons extensively, which was regarded as highly possible. Thus nuclear weapons *were used* against a non-nuclear opponent during the Gulf War.

By the same token, contrary to the belief of most Americans that US nuclear weapons have never been used in the fifty years since Hiroshima and Nagasaki, American Presidents have employed nuclear threats nearly two dozen times, generally in secret from the US public, in crises and limited wars in Indochina, East Asia, Berlin, Cuba and the Middle East. The Soviet Union, Israel, and Pakistan have used nuclear weapons in the same way.

In each of these cases, nuclear weapons were used in the exact sense in which a gun is used when it is pointed at someone's head in a confrontation, whether or not the trigger is pulled. To get one's way without having to pull the trigger is a major reason for owning the gun and, often, for brandishing it.

Some of these nuclear threats were probably bluffs, some probably not. Most were ambiguous, some were rejected, some were believed to be successful, including those in the Gulf War. But all of them involved real dangers, short-run or long, to some degree, for *both* sides; intimidation on this scale is never without risk.

One of the successes, the Pentagon has concluded, was the Gulf War. Saddam Hussein did not, after all, use his chemical weapons, either against Allied troops or against Israel. Fear of Israeli nuclear reprisal may have been an especially effective deterrent. But this success, if true, came at a high price. The message that the United States and its allies regarded such threats both as legitimate and as successful was not lost on potential proliferators, who could imagine themselves either as receiving or as imitating such threats themselves in the future.

Yet another spur to proliferation was the accompanying thought, among Third World observers, that Iraq might have been spared both these nuclear threats and the heavy conventional bombing it received if Saddam Hussein's efforts to acquire a nuclear weapon had already been successful. And once proliferation has occurred, new nuclear states are likely to use the same ambiguous first-use threats, in the same ways and with the same risks of provocation, commitment, and of possible failure and escalation.

Most dangerous of all deployments in the world are tactical nuclear weapons still in the hands of ground units or in dispersed depots in Russia, subject to poor accountability and to potential sale, theft or involvement in civil strife.

This observation rejects the common, condescending implication that significant risk of nuclear war will emerge for the first time only with the acquisition of nuclear weapons by "irresponsible, immature" leaders in the Third World. But it also presumes that the risk of nuclear war has been higher over the last 40 years than the world public was allowed to learn.

With nuclear weapons in the hands of a greater number of leaders, individually no more but no less reckless that most American presidents of the last half-century, the long-term risk of nuclear explosions is higher still. There is no basis here for complacency.

Nor are the dangers associated with US first-use threats limited to their incentive to further proliferation. For 25 years, China, the only nuclear-weapon state to have maintained a no-first-use policy itself over that period, has demanded that this policy be universally adopted as a condition of its own serious involvement in arms control, including a Comprehensive Test Ban. Moreover, US rejection of this demand prevents it from pressing Russia to return to a no-

first-use policy, which would in turn be a basis for proposing a bilateral zero-option for tactical nuclear weapons.

This is a serious constraint. Perhaps most dangerous of all, deployments in the world are tactical nuclear weapons still in the hands of ground units or in dispersed depots in Russia, subject to poor accountability and to potential sale, theft or involvement in civil strife. To forego pressure on Russia—to withdraw such highly transportable warheads from deployment, to dismantle them under safeguards and to put their fissile material irreversibly under international controls—because the United States wants to retain its own freedom of action over its own remaining tactical weapons, is incredibly shortsighted.

Equally foolish and dangerous is the failure of the Clinton administration to seek Russian commitment to immediate deactivation of strategic weapons to be dismantled; and to the dismantling, under reciprocal, bilateral controls, of warheads as well as vehicles; and to international control of all the fissile material from these warheads. Only such a combination of measures could lock in the reductions verifiably and irreversibly. Yet the Clinton administration, like its predecessor, has hung back from proposing, let alone demanding, such bilateral commitments at the cost of its own freedom of action. The inevitable result, as in other instances, has been to allow Russia—and other nuclear-weapon states—the same freedom of action, and to encourage threshold states to join the club and act likewise.

There isn't any national security rationale, or any excuse, for US failure to press President Yeltsin now, and on every occasion, to commit Russia to reduce and dismantle its nuclear forces, both strategic and tactical, as far and as fast as Yeltsin can be induced to go on a mutual and reciprocal basis. Yet because of reluctance to cut our own forces as deeply as Yeltsin has actually proposed—down to 2000 in 1992, and reportedly to 1000 last fall—high-level officials under Clinton as under Bush have bargained Yeltsin *up* in terms of joint levels of strategic forces to be negotiated.

The risks of such fecklessness are incalculable. The unprecedented opportunities that emerged in early 1992 for reducing and eliminating nuclear weapons and for changing long-standing cold war policies have been subject to continuous erosion and challenge. They are not permanent. Warnings by Secretary of Defense Perry, like those of Cheney before him, that the Russian future is highly uncertain, and unpromising, are self-evidently realistic. But the conclusions they have drawn from this, serving to preserve swollen defense budgets and nuclear arsenals on both sides, seem perverse-

It is true that there is a continuing danger of a shift to a more authoritarian, militarist regime within Russia which would close down such opportunity as still might be nurtured for greatly increased trust and cooperation, openness to international inspection, and reductions in arms.

But that is precisely why reciprocal commitments to inspection and disarmament should be sought so urgently today, before Yeltsin has been replaced or transformed for the worse. No matter how fascistic his successors might be, or Yeltsin might become himself, Russian need for credits and trade would make its leaders extremely reluctant to disavow formal undertakings that were made now. The logic of these ominous uncertainties points in exactly the opposite direction from maintaining insanely high levels of nuclear weaponry in Russian, along with American, hands.

"Insane" is not too strong a word for arguments that occupy planners in the Pentagon and otherwise-serious arms control analysts in favor of maintaining *thousands* of thermonuclear warheads in the US arsenal—hence thousands in Russia—in a world where neither any longer has a superpower adversary. After two generations of a strategic nuclear arms race that was the clearest example in human history of a social process psychotically divorced from reality, such advisors have clearly lost any conception of what a nuclear bomb is or does.

They have forgotten, if they ever knew, that pictures of Nagasaki in the late summer of 1945 show what happens to a medium-sized city when just the *detonator* to a modern, thermonuclear weapon is exploded in its midst. Almost no Americans are aware of the elementary fact that every thermonuclear fusion weapon, or H-bomb—which comprise all of our strategic arsenal, still over *9,000* warheads—requires a Nagasaki-type fission warhead, or A-bomb, to set it off.

The earliest thermonuclear blasts released 1,000 times the explosive power of the A-bomb detonator that triggered it, which was in turn 2,000 times more powerful than the largest "blockbuster" of World War II, which destroyed a city block with ten tons of TNT. The second fusion explosion, in February 1954, had a yield equivalent to 15 *million* tons of TNT, over seven times greater than the tonnage of all the bombs dropped by the United States in World War II, including the A-bombs on Hiroshima and Nagasaki.

It is in that unearthly light that bomb designer Herbert York, the first director of Livermore Nuclear Weapons Laboratory and later President Carter's test ban negotiator, has given an unfamiliar but plausible answer to the cold war question: How many survivable, deliverable nuclear warheads would it take to deter an adver-

sary rational enough to be deterred at all? York's answer is: "Somewhere in the range of 1, 10, or 100"; and, he conjectures, "I think it is closer to 1 than it is to 100."

York also suggests another way of arriving at an upper limit for an appropriate nuclear arsenal. He proposes that we ask ourselves what is the upper limit of destructive power within a short period of time that we would want a single state, or a single individual heading that state, to control. Suppose that upper limit was the ability to inflict, in a day or two, the full scale of destruction of World War II. Surely it would be challenging to justify a capability to inflict immediate damage that was greater than that.

That criterion would imply, York calculates, an upper limit to a survivable nuclear force of about 100 thermonuclear warheads. It might be as many as 200. It would certainly not allow 1000 warheads, or 500.

Thus, even by cold war standards of requirements for deterring nuclear attack, applied to present and foreseeable conditions: what nuclear-weapon state can really make a plausible case for possessing as many nuclear weapons as the *300-500* deployed by France, Britain, or China? Not France, or Britain, or China; nor the United States, nor Russia.

Even the smaller of these states continue to maintain and to expand arsenals so large as to mock intolerably the presumption of the Non-Proliferation Treaty that none of the other states of the world, the non-nuclear-weapon states, has any compelling or legitimate reason to possess even one nuclear weapon. Meanwhile, the United States and Russian arsenals will each be ten times larger even after agreed reductions of START II are implemented (in 2003). Nor did they show any *commitment* at the NPT Renewal Conference—despite widespread demands to do so—to achieving further mutual reductions. In effect, they chose at this Conference to say to every non-nuclear-weapon state: "You don't need a single nuclear weapon ever. We need thousands indefinitely."

This contradiction simply cannot be sustained any longer. The situation is increasingly unstable. At a time when fissile materials and nuclear weapons are becoming widely available, the nuclear-weapon states, led by the United States and Russia, cannot continue to maintain and flaunt the privileges of the nuclear "club" without membership in that club eventually expanding.

Without an effective international norm against both acquisition and threat/use of nuclear weapons, there cannot be an adequate basis for consensual, coordinated international action to prevent such acquisition or use, including intrusive inspection "any time any place," with comprehensive sanctions against violators of

the norm. But there cannot be such a norm, a true international consensus on values and obligations, so long as the current nuclear weapon states project an indefinite extension of a two-tier system in which they are subject to a different set of rules, or in effect, no rules at all.

At the same time, trying to close off all technological access to nuclear weapons will never be enough to discourage others from following America's and NATO's nuclear example. The current "supply side" approach, by itself, cannot succeed. An essential effort to reduce the demand for nuclear weapons must resolve existing regional conflicts as in the Middle East and South Asia, provide effective alternatives to military means, and reduce decisively global causes of war.

The moment has come for the nuclear-weapon states to acknowledge the reality that they have been denying and the non-nuclear-weapon states have been proclaiming for a quarter of a century: that in the long run—and the time is now—effective nonproliferation is inescapably linked to nuclear disarmament.

More narrowly, it must bring about changes in official nuclear policies of the United States and other nuclear-weapon states that now *enhance* the demand for nuclear weapons by creating incentives for proliferation or by making it seem legitimate. The nuclear-weapon states, led by the United States and Russia, can only adequately reduce incentives to join the club by moving convincingly toward its eventual dissolution, and meanwhile giving up decisively the discriminatory privileges of membership: freedom to test, to expand and modernize arsenals, to threaten first-use, to flaunt status differentials, to be free of international inspection and accountability.

Only in that context of normative and practical disincentives to acquire or threaten to use nuclear weapons can there be effective international collaboration in enforcing global bans on such activities. The norms have to be universal: one set of rules for everyone.

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It is all or none. Eventually either all nations forego the right to possess and threaten others with nuclear weapons or every nation will claim that right, and actual possession and use will be very widespread.

It was observed earlier that no nuclear-weapon state has ever had an appropriate posture from which to discourage proliferation. (Indeed, nearly every one has actively stimulated efforts toward proliferation in at least one neighbor or rival). A shift toward such a posture awaits fundamental changes in the present policies of all nuclear-weapon states, which must rest on a new way of thinking about nuclear weapons and weapons-usable fissile materials.

No longer can we afford to think of such permanently toxic, provocative and dangerous objects and materials as "national treasure"—as Russian officials of the Ministry of Atomic Affairs persist in describing Russian plutonium. We must come to see the existence of nuclear stockpiles in any country, starting with the United States and Russia, as a threatening and urgent international problem, akin to global warming and ozone depletion, or to radioactive waste (literally) that needs to be dealt with cooperatively by humanity as a whole, led by the countries which are themselves the greatest contributors to the problem.

We must shift the focus and creative energies of the military and the laboratories in all the nuclear-weapon states to ways of quickly and irreversibly disabling the weapons under multilateral safeguards, and guarding them safely until they can be dismantled. Planning should begin now to safeguard the radioactive residues indefinitely under international supervision.

Only if those of us in the United States act decisively and consistently on such a reconceptualization can we ask any other countries to forego nuclear weapons altogether, ask other nuclear-weapon states to restrain their buildup or use of threats, or expect effective international collaboration on enforcement. We cannot hope for any of these so long as we continue to develop and test new nuclear warheads—if only at yields below a low threshold, or in simulations or "above-ground experiments"—while we insist on our freedom to initiate nuclear warfare, and maintain massive nuclear arsenals... *or in the longer run, any nuclear arsenal at all.*

MANHATTAN PROJECT II

To express convincingly in the short run this fundamentally changed relation to nuclear weapons the current nuclear-weapon states need a dramatic and comprehensive package of coordinated

changes in policies and programs. In the United States the main precedent for that kind of effort is the very one which launched the nuclear era: the Manhattan Project.

The 50th anniversary of the Manhattan Project's lethal culmination is the right time to launch Manhattan Project II: the abolition of nuclear weapons. The task of the second Manhattan Project is, as quickly and completely as possible, to undo the legacy of the first: to free the earth of nuclear weapons and, even sooner, of the threat of nuclear war.

Devising practical solutions and programs—and getting them accepted and implemented—for freeing the world from nuclear threats and ridding it quickly of most, and eventually all, of its nuclear weapons has more varied political, psychological and physical dimensions than the original project. It faces even more obstacles. It takes different types of expertise; or rather, it will not and cannot be done mainly by "experts."

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There must be great differences of Manhattan Project II from its original namesake. It must be international, virtually universal, including the Third World, women, people of color, non-scientists; non-secretive, open; political and moral more than technical; initially non-governmental and non-bureaucratic. Yet it is the very complexity and interdisciplinary nature of these challenges, and above all the sense of supreme priority and urgency that suggests the image of the Manhattan Project.

The need for the denuclearization of world arsenals should give a sense of urgency to a new Manhattan Project as great as that which inspired the original one fifty years ago. Then, the time pressure came from the supposed prospect of a Nazi bomb. Now it reflects both a window of opportunity and the prospect of bombs in a host of new countries or in the hands of terrorist groups or other black market customers.

Manhattan Project II cannot uninvent nuclear weapons. It cannot prevent later-generation weapons from coming into being if development and testing, once ended, should later be resumed. Even physical elimination of all existing weapons, if and when the Project achieves that goal, cannot guarantee that they will never

return. The work of the original project will not ever be entirely undone. The danger it bequeathed can never be reduced permanently to zero.

But these truisms do not mean that anything like the present levels of danger should be tolerated any longer: even for another year, let alone indefinitely. In a meaningful sense, near-abolition of nuclear weapons—95-99 percent dismantlement of current stockpiles—is an appropriate goal to be achieved within a decade. And much sooner than that, radical, decisive transformations of the status quo can occur within months or a year that could be highly effective in averting proliferation and reducing to near-zero the risk of nuclear attack by any existing nuclear state.

The program spelled out below can be seen as the early and middle stages of the phased elimination of nuclear weapons. It does not assume that abolition can be achieved in one leap; nor that the goal of abolition is best achieved simply by demanding it with no specification of a constructive path toward it; nor that any nuclear state is now or is likely soon to be ready to commit itself to achieving it on a definite time-table. Yet it does represent a belief that quite drastic steps in this direction—going far beyond the current proposals of any nuclear state, to a state that could reasonably be called "near-abolition"—are both desirable and politically possible in the relatively short run.

Thus it presumes that abolition must come in stages, including not only progressive reductions but steps to make these reductions irreversible. These must include commitments to deactivate and dismantle warheads and missiles; bilateral or international monitoring of this process; and steps to devalue and delegitimate nuclear weapons use (including threats), thus reducing or eliminating incentives to acquire or reacquire them. But a true commitment to total abolition as the goal is no longer to be delayed or equivocated. Participants in Manhattan Project II include every person, group and institution in the world that consciously accepts and devotes creative thought and effort to the goal of abolishing nuclear weapons, banning and eliminating their use and possession, along with other weapons of mass destruction.

From the outset, the long-run tasks of the project must include the effort to explore and to begin immediately to help bring about the conditions that will make a world of zero weapons of mass destruction feasible. Whatever these tasks may tentatively appear to be, we cannot accept the conclusion that abolition must be ruled out "for the foreseeable future" or put off for generations. There will be no truly human future without it; therefore a way must be found to make the required transformations ultimately practical.

Indeed, it seems more naive than realistic to believe that cities can coexist indefinitely with wars and nuclear weapons.

However, long before the conditions for total abolition have been wholly met, other goals of the utmost importance are clearly attainable. These are spelled out below, but two, of particular normative and symbolic significance, deserve final mention here: 1) joining China and most of the non-nuclear states of the world in rejecting the legitimacy of first-use threats or attacks under any circumstances, and 2) in reaffirming the goal of elimination of nuclear weapons.

No First Use

Few Americans are aware of the extent to which the United States and NATO first-use doctrine has isolated the United States and its Western allies morally and politically from world opinion. Nor are they familiar with the sharpness of the language used by UN majorities in resolutions condemning the policies on which NATO has long based its planning.

UN Resolution 36100, the Declaration on the Prevention of Nuclear Catastrophe, was adopted on December 9, 1981. It declares in its Preamble: "Any doctrine allowing the first use of nuclear weapons and any actions pushing the world toward a catastrophe are incompatible with human moral standards and the lofty ideals of the UN." (One first-use doctrine so described is the basic strategic concept of NATO, devised and promoted by the United States from the early fifties to the present; most Americans, polls show, have never been aware of this).

The body of UN Resolution 36100 declares: "States and statesmen that resort first to nuclear weapons will be committing the gravest crime against humanity. There will never be any justification or pardon for statesmen who take the decision to be the first to use nuclear weapons."

Eighty two nations voted in favor of this declaration. Forty one abstained; 19 opposed it, including the United States and most NATO member nations.

That the dissenters were allies of the United States is no coincidence. The first-use doctrine denounced here in such stark terms underlies the basic strategic concept of NATO, devised and promoted by the United States from the early fifties to the present. NATO plans and preparations not only "allow" first use of nuclear weapons, if necessary to defeat an overwhelming attack, they promise it; they always have, and they still do.

Six years after the fall of the Berlin Wall, hundreds of US tactical nuclear weapons remain in Europe to carry out first-use nuclear

attacks as a "last resort," although the Warsaw Pact is no more and all its former members, including Russia, are applying for membership in NATO.

Indeed, at the NPT Renewal Conference in May 1995 the United States, along with Russia, France and Britain, was in the astonishing position of urging 175 non-nuclear-weapon states to forego the possession of nuclear weapons permanently while refusing to assure any of those NPT members that it would never threaten or attack them with a nuclear weapon! (Only China, of the five declared nuclear-weapon states, has made the simple, unqualified commitment that it would never be the first to use a nuclear weapon, and that it would not use nuclear weapons against a non-nuclear-weapon state.)

With an era of widespread proliferation looming, it should be unmistakably clear that accepting UN resolution 36100 as a universal principle would be in the best interests of the United States and the rest of the world. The United States and its allies would join, at last, in a moral judgment that is already asserted by the majority of governments of the world.

What is at issue here is more than the practical benefits of joining in a consensus. It was suggested earlier that many strategic planners and even many arms control analysts have lost track of the reality of what a nuclear bomb is, and what it does. In the light of that reality, plans and doctrines for the use of nuclear weapons, and resistance to the goal of eliminating them, raise questions about who we are—as a nation, as citizens, as a species—and what we have been doing and risking, what we have a right to do, or an obligation, and what we should not do.

In August 1995 the world was reminded, by pictures of Nagasaki 50 years ago, of the look of a city that has been destroyed by the (A-bomb) detonator of a modern H-bomb, which might be 1,000 times more powerful.

But more recently we have seen live on television, and in endless replays, the effects on buildings and humans—at the World Trade Center and in Oklahoma City—of exploding near them roughly the quantity of conventional explosive that was needed to detonate the Nagasaki A-bomb, which then had a yield 1,000 times greater.

My main argument is that the United States—along with the other nuclear-weapon states—has failed to do remotely as much as it could and must do to motivate and to organize an effective non-proliferation regime. In particular, all these nuclear-weapon states (China has been an exception in its rhetoric, but not in its recent practice of testing or modernization) have been unwilling to negotiate the necessary constraints on their own freedom of action, to develop, test, deploy and threaten nuclear weapons, in order to motivate a true international tabu against nuclear acquisition and a strong inspection regime.

The costs of this folly will be measured in otherwise-avoidable regional nuclear wars and nuclear terrorism replicating the Oklahoma City massacre on the scale of 1,000 to one. But there is a moral cost, as well, in reliance by the United States and others on threats and readiness to initiate such slaughter by state action.

In contrast to the firebombing of Tokyo and the atomic bombings of Hiroshima and Nagasaki—which to this day Americans have been unable to recognize as massacres of civilians, war crimes, terrorism, like the Japanese massacre at Nanjing—the Oklahoma City bombing has been described properly as a terrorist act. Terrorism is the deliberate slaughter of noncombatants—women, children, the old and the sick, civilians, unarmed victims—for a political purpose.

An attack by a single tactical nuclear weapon near a densely populated area would kill tens to hundreds of thousands of noncombatants (like the Nagasaki weapon, which would be considered, in terms of scale, a tactical weapon today). That would be a terrorist act.

Virtually any threat of first-use of a nuclear weapon is a terrorist threat. Any nation making such threats—that means the United States and its allies, along with Russia—is a terrorist nation. But the same is true of threats of nuclear retaliation to nuclear attack; to threaten second-use is to threaten counter-terrorism on a large-scale retaliatory genocide. To possess a nuclear weapon is to be a terrorist nation.

To reject terrorism—as we should, as moral beings—is to reject the possession of nuclear weapons. The elimination of nuclear weapons, of nuclear terrorism, will have to be accomplished by multilateral collaboration. But it must be accomplished.

To recover fundamental moral bearings, as well as to preserve life and civilization, the United States, Russia, Britain, France, China, Israel, India and Pakistan must cease to be terrorist states.

The challenge especially to citizens of these states, in company with others around the world, is to bring their national policies into line—overcoming the resistance of their present national leaderships—with fundamental morality, and thus with the global goal, the species-task, defined by the UN Secretary-General in his inaugural address to the NPT Renewal Conference in May 1995: "The most safe, sure and swift way to deal with the threat of nuclear arms is to do away with them in every regard. This should be our vision of the future. No more testing. No more production. No more

sales or transfer. Reduction and destruction of all nuclear weapons and the means to make them should be humanity's great cause."

Manhattan Project II Program:
Beyond START II and a Comprehensive Test Ban

1. **Reaffirm the Goal of Abolition of Nuclear Weapons**

The United States and Russia should schedule the onset of multilateral negotiations to this end, aimed at completing and signing by the year 2000 a Global Convention on Comprehensive Nuclear Disarmament.

2. **Make Strategic Force Reductions Deeper, Faster and Irreversible**

The United States and Russia should agree to:

- dismantle warheads and missiles scheduled to be reduced, with accelerated implementation of the process: warheads to be removed from vehicles, warhead cores deactivated prior to total dismantlement, missiles (e.g., MX and SS-18s) to be immediately removed from silos.
- reaffirm commitment to preserve the antiballistic missile treaty, strictly interpreted (a prerequisite to deep cuts, and even to implementation, or perhaps Russian ratification, of START II; this is threatened by the Republicans' Contract, and to a considerable extent by Clinton's plans to conduct tests of "theater" defenses that may conflict with the ABM Treaty).
- in the next round of cuts beyond START II—negotiations to start immediately—aim to reduce their arsenals to the neighborhood of the other declared nuclear states—around 500 warheads or less—by 2005, calling on these others not to increase or modernize their arsenals while awaiting multilateral reductions to lower levels.
- make early commitments to seek multilateral ceilings—on the way eventually to a nuclear-weapons-free world—on the order of tens to 100 nuclear weapons.

3. **Commit To No First-Use and Implementation**

- The United States should join China, and call on Russia and other nuclear states to do likewise, in declaring that the United States will not, under any circumstances, be first to use nuclear weapons, and will not threaten or use nuclear weapons against non-nuclear-weapons states.

The United States and Russia should:

- seek to establish under the UN Security Council a universal prohibition against such initiation or threats of nuclear weapons use, backed up by agreements and unilateral undertakings to take action against violators of this ban.
- agree to withdraw from deployment all United States and Russian tactical nuclear weapons, seeking a global ban, dismantling both weapons systems and nuclear warheads, under bilateral safeguards.
- move toward "zero alert" for operational missiles and aircraft, taking land-based missiles off alert and adopting zonal and other restrictions on missile submarine patrols and antisubmarine-warfare operations.
- encourage regional nuclear-free zones, with legally-binding assurances, by nuclear-weapons states of non-use of nuclear weapons against such zones.
- cease—by unilateral restraints and by agreements—fueling regional arms races by conventional arms sales and transfers, especially such as encourage or provoke acquisition of nuclear weapons or facilitate their use (e.g., dual-capable F-16s or ballistic missiles).

4. **Increase Transparency and International Accountability of Nuclear Weapons, Fissile Material Stockpiles and the Dismantling Process**

The United States should seek to achieve:

- bilateral monitoring of transport and storage of US and Russian weapons to be dismantled.
- disclosure of stockpile data and international registry of all nuclear weapons and all weapons usable fissile materials, for purposes of accounting control and monitoring of disposition.
- all nuclear-weapon states to open their nuclear and nuclear-suspected facilities to the same international verification and monitoring procedures that are demanded of non-nuclear-weapon states.

5. **Ban Production of Weapons-Usable Fissile Material and Provide for International Control of Stockpiles and Disposition**

The United States should seek to achieve:

- international monitoring of the transport, storage and disposition of all fissile materials from dismantled weapons, with countries of origin relinquishing any rights to reuse this material for weapons.
- a global, verified cutoff in the production of fissile materials

for weapons purposes and initiate a program for monitoring all existing military stocks and safeguarding all civil stocks.

- a moratorium on programs for the civilian production and use of weapons-usable fissile materials, separated plutonium and highly enriched uranium, with the longer-term goal of a complete ban on the production, stockpiling and use of such material for any purposes including civilian energy or research, along with verified declarations and reductions of existing stocks under international safeguards or possibly custody.
- increased funding and inspection capabilities of the IAEA or a new international agency for inspection, and strengthened UN Security Council procedures for backing up the inspection process and bringing international sanctions to bear on violators.

Third Generation Hydrogen Bombs and Lessons from History

By Michio Kaku

Here's a riddle: Why does the Pentagon insist on testing nuclear weapons, even after the collapse of the Soviet Union?

The answer to this riddle is revealing and vital for the direction of the peace movement, because an incorrect answer to a similar puzzle back in 1963 caused a crucial tactical miscalculation by the Ban the Bomb movement, leading to its eventual disintegration. Today, with the Comprehensive Test Ban (CTB) Treaty, we face a historic crossroads similar to the one faced in 1963, when the Limited Test Ban Treaty was signed.

On the surface, it seems silly and wasteful to conduct underground tests of nuclear weapons when the United States is shadow boxing with itself in the post-cold war era. Against whom are we going to fire these nuclear weapons?

Oddly, the Pentagon only gives a feeble, half-hearted defense for testing. First, the Pentagon claims that they need nuclear testing to insure against accidental detonations. But every nuclear device is equipped with multiple safeties on it, much like the safety latch of a gun which prevents an accidental discharge. It's a simple matter to add more electronic safeties to a nuclear bomb to prevent accidental detonation.

Second, the Pentagon claims that we must test the reliability of nuclear weapons as they get old. True, nuclear weapons degrade slowly, but it is not difficult to refit and replenish nuclear warheads, so aging has never been a serious problem. The only thing getting stale are the excuses of the Pentagon.

Anyone with familiarity with the weapons industry knows that one principle driving force behind the Pentagon's resisting the CTB is that it is perfecting an entirely new generation of nuclear weapons, third-generation or "designer" hydrogen bombs, specifically tailored to execute a wide variety of specialized functions in warfare.

These versatile weapons will give the United States a significant military threat to dominate and control the escalation of different kinds of conventional conflicts. The threat to use these designer weapons is credible, hence they are "usable" in warfare and pack considerable threat-making power.

A ban on testing will severely cripple the development of these weapons, since no general wants to use a weapon that has not been thoroughly tested. However, even with a CTB, the weapons labs